

ABSTRACT

A color image is digitally printed onto an intermediate transfer medium. The image is subsequently transferred from the intermediate transfer medium to a final substrate, which may be a cellulosic textile, such as cotton. Bonding of the color images is provided by the reaction between compounds selected from each of two chemical groups contained in the intermediate transfer medium. The first groups comprises compounds with functional groups capable of reacting with active hydrogen, such as isocyanate or epoxy groups. The second group comprises compounds with functional groups containing active hydrogen, or compounds with functional groups containing active hydrogen after a conversion process. The functional groups of one or both reactive chemical groups may be protected either by blocking with internal or external blocking agents or by a physical barrier such as encapsulating agents. The blocking agents are removed by the application of energy, such as heat, during the transfer of the image from the intermediate transfer medium to the final substrate. The intermediate transfer medium may be comprised of additional components which may be combined with either or both of the above two chemical groups, or applied as separate layers. Examples of such components are a thermally expandable material, an exothermic chemical, a release agent, and/or absorbent material. Transferred images so produced have a soft hand, particularly when applied to a textile, and excellent fade and abrasion resistance.